

Name _____

Date _____ Block _____

Practice CW : INVERSE FUNCTIONS

* Do circled problems

Inverse Relations

Find the inverse for each relation.

1. $\{(1, -3), (-2, 3), (5, 1), (6, 4)\}$ 2. $\{(-5, 7), (-6, -8), (1, -2), (10, 3)\}$

Finding Inverses

Find an equation for the inverse for each of the following relations.

3. $y = 3x + 2$ 4. $y = -5x - 7$ 5. $y = 12x - 3$
6. $y = -8x + 16$ 7. $y = \frac{2}{3}x - 5$ 8. $y = -\frac{3}{4}x + 5$
9. $y = -\frac{5}{8}x + 10$ 10. $y = \frac{1}{2}x + 8$ 11. $y = x^2 + 5$
12. $y = x^2 - 4$ 13. $y = (x + 3)^2$ 14. $y = (x - 6)^3$
15. $y = \sqrt{x - 2}$ 16. $y = \sqrt[4]{x + 5}$ 17. $y = \sqrt{x} + 8$
18. $y = \sqrt[3]{x} - 7$

Verifying InversesVerify that f and g are inverse functions. - Use composition - Find $f(g(x))$ and $g(f(x))$

19. $f(x) = x + 6, g(x) = x - 6$ 20. $f(x) = 5x + 2, g(x) = \frac{x - 2}{5}$
21. $f(x) = -3x - 9, g(x) = -\frac{1}{3}x - 3$ 22. $f(x) = 2x - 7, g(x) = \frac{x + 7}{2}$
23. $f(x) = -4x + 8, g(x) = -\frac{1}{4}x + 2$ 24. $f(x) = \frac{1}{2}x - 7, g(x) = 2x + 14$

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